SPOTLIGHT
Savills Research

Electric Vehicle Charging: Maximising Opportunity

UK Commercial – Autumn 2024

savills

Savills Property Services

Savills has the ability and experience to provide a number of different property services, assisting various stakeholders in maximising opportunities through electric vehicle charging.

The market share of electric vehicles (EVs) has been consistently growing over the last few years. Although consumer demand has fluctuated, vehicle manufacturers are legally required by the zero emission vehicle (ZEV) mandate to sell a certain number of new EVs every year until the 2035 target of being fully electric. The 2035 deadline was pushed out and set by the Conservative government and is now going to return to 2030 under the new Labour government.

The penalty for failure? Hefty fines.

22% ZERO EMISSION NEW VEHICLE SALES FROM JANUARY 2024

100% BY 2030

£15,000 FINE PER UNIT FOR MANUFACTURERS

There are several barriers to the uptake of EVs. Cost for the consumer has been a significant factor, but EVs are now becoming increasingly more affordable with a variety of models.

It would seem the biggest remaining obstacle is the provision of public charging infrastructure, which is clearly lagging behind the increasing uptake of EVs.

The SMMT model suggests that 80% of EV charging should take place at home or in the office, where consumers have the longest dwell time. However, this does not consider the approximately 40% of the population who do not have access to off-street car parking.

This highlights the need for different types and speeds of charging hubs to complement various property types. There will always be a need for rapid and ultra-rapid charging hubs for en-route or emergency charging. These hubs will have shorter dwell times, which means that powerful chargers will have higher power requirements.

Order of Magnitude Assessment of Market Requirement

Petrol stations in the UK	8,381
Pumps per station	8
Total pumps	67,048
Cars in the UK	33,600,000
Ratio of cars per pump	501

Source: Savills Research

Average petrol filling time, hours	0.2
Average EV charging time, hours	8.0
Ratio	40.0
Implied number of EV points	2,681,920
Discount for off-street home parking	40%
Demand/need	1,072,768
EV charging points in the UK now	55,000
Increased requirement	1,017,768
Increase from present charging points	1850%

Figure 1: Charging power ratings and charge times

	Slow	Fast	Rapid	Ultra-rapid
Power rating	<8kW	8–49kW	50–149kW	>150kW plus
Charge time (of 60kWh battery)	>10 hrs	3–7 hrs	0.5–1 hrs	<0.3 hrs
Average charge of 10kWh	1.5–3 hrs	0.5–1.5 hrs	<15 mins	<10 mins
Vehicle range added in 45 mins	<16 miles	16–50 miles	97–169 miles	>200 miles

Source: Savills Research

Figure 2 shows the increase in charging points in the UK over the past four years, highlighting a significant rise in the number of ultra-rapid installations.

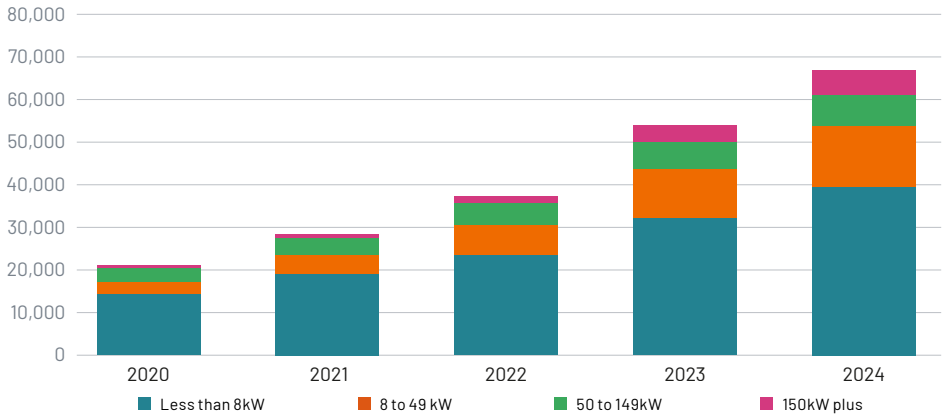
Different types of properties can be categorised based on the charging speeds they can accommodate, resulting in varying levels of revenue for the charge point operator (CPO) and thus, different levels of value to a landlord.

The operator market is highly congested and competitive, with over 100 CPOs estimated to be active in expanding their networks. It can be overwhelming for landlords to receive approaches from multiple CPOs, each with different offerings. Landlords with properties that have the following characteristics will usually attract CPO interest for rapid and ultra-rapid charging hubs, where the most value can be unlocked:

- Proximity to major road networks
- 15,000+ vehicles passing by daily
- Nearby amenities such as coffee shops, toilets, and wifi

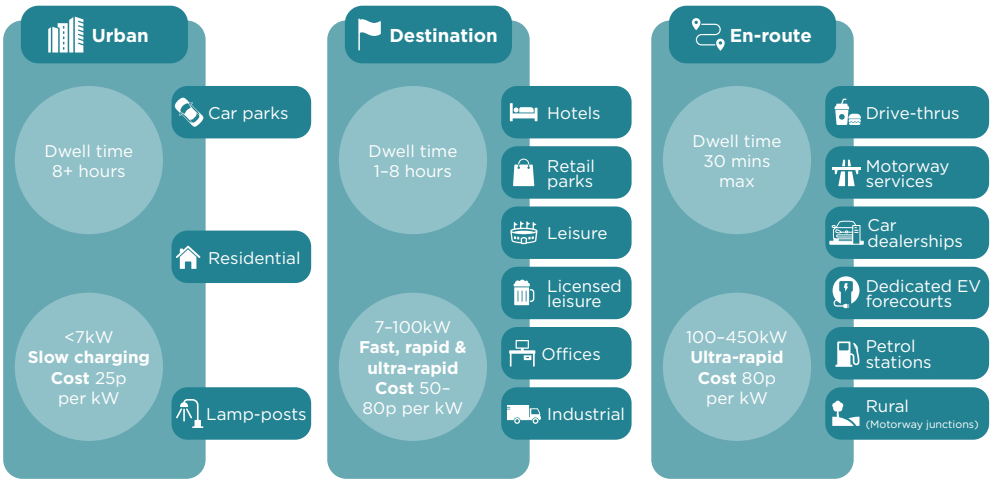
If an asset has these base-level characteristics, there are two routes that can be taken:

Figure 2: EV charger rollout



Source: Zapmap

Types of charging hubs



1. CPO funded

Arguably the more common route, where the cost to obtain the appropriate power capacity is incurred by the CPO. For a charging hub of 8–24 bays, somewhere between 800 KVA and 2 MVA is required, costing in the region of £250,000–£1,000,000*.

Given that the CPO will bear this cost, it will significantly alter the level of rent they can offer and the number of chargers they can install. Typical terms for this structure are as follows:

- Rents between £3,000–£5,000 per bay per annum

  Or

  5% revenue share

  Or

  20% profit share
- 30 year lease
- Annual CPI rent review, collar and capped at 1-4%.

2. Landlord funded

Alternatively, a landlord has the option to cover the cost of obtaining power themselves, alleviating the substantial initial capital expenditure and the risk of securing power from the CPO. This allows them to offer more flexible lease terms and potentially charge higher rents.

- Rents upwards of £10,000 per bay per annum
- 15–30-year leases
- Annual CPI rent review, collar and capped 1–4%.

*this is site-dependent and can vary

Services

Savills has the expertise and experience to offer a variety of property services, helping different stakeholders maximise opportunities through EV charging.

Asset Valuations and Transactions

Savills has a proven track record of providing Red Book valuations of EV charging hubs for secured lending, as well as offering pricing advice to landlords and developers on individual assets. Additionally, there's a growing interest in green infrastructure and low carbon investment in the UK, and Savills has been guiding investors on income opportunities related to EV charging hubs.

Savills has a strong track record of acquiring sites for CPOs, including advising Scottish & Southern Energy (SSE) on several site acquisitions in the UK and providing advice to BP Pulse in mainland Europe.

Savills has also represented landlords and developers in selecting EV charging partners for both individual assets and portfolios.

Portfolio Advice

Landlords have a significant advantage when assessing offers from CPOs if they possess data and information about the power supply to their properties. Ultimately, the value is closely linked to power availability. Savills can provide a comprehensive service for installing EV charging points on a mass scale, across multiple properties.

CASE STUDY

Provided a secured lending Red Book Valuation for 16-bay EV Charging Hub in Northern Ireland.

Our service path

GRID ANALYSIS AND CAPACITY HEALTH CHECK

Do you know how many EV chargers you want to set in place?

Understand what power is available versus how much is needed

EV CHARGING STRATEGY ADVICE

Which locations suit EV charging best? What kind of chargers are required?

Analyse the market and prioritise sites

FEASIBILITY STUDY

How much is it going to cost? What's the implementation path?

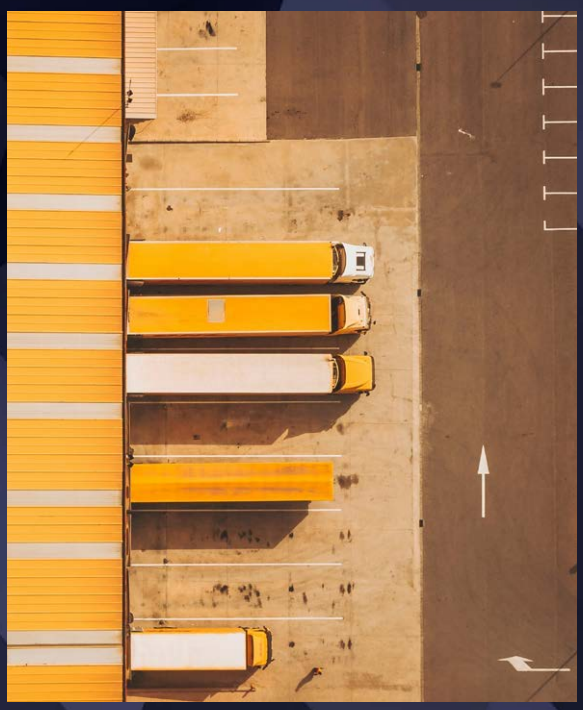
How to deliver commercially viable EV charging

PROJECT OVERVIEW SERVICES

How do we make it a reality?

Tendering and delivering the site

Opportunity areas



Planning

EV charging hubs will likely be classified as 'developments' and will therefore be subject to planning regulations. Many authorities require EV charging bays to be demonstrated on new residential and commercial schemes at the point of planning, and this is usually conditioned to ensure delivery pre-occupation. EV charging hubs are emerging as part of wider mixed-use schemes (coffee shops, gyms, welfare facilities, etc.) and will likely require full planning permission.

Smaller EV charging hubs located in areas like retail parks may be eligible for planning permission under Permitted Development (PD) rights. These rights differ between England, Scotland, and Wales but generally cover EV charging upstands, substations, solar canopies, and bollards.

PD rights come with strict limitations and conditions, such as height and distance from highways, which need to be assessed on a case-by-case basis. Currently, Scotland has the most lenient PD rights, while England is in the process of consulting on further changes, which are expected to come into effect in late summer.

CASE STUDY

Savills Planning is experienced in EV charging hub development, leading on town planning for SSE Energy Solutions, with a track record of over 75 sites.

sse Energy Solutions

Neighbourhood Charging

Savills Economics has developed a framework and modelling tool to pinpoint optimal locations for new public EV charging infrastructure. By analysing a wide range of market variables, the model can estimate the demand for charging points by neighbourhood. Key factors considered include off-street parking availability, existing chargepoint density, and a host of socio-economic indicators. The model identifies areas with the most significant disparity between projected demand and current supply of EV charging points. To enhance their analysis, Savills Economics also leverages proprietary geographic and housing data. The team is also exploring the acquisition of EV purchase inquiries and sales data to further refine their model. With this tool, Savills Economics can provide invaluable guidance to Charge Point Operators (CPOs) and local authorities and assist with their strategies to increase the roll out of public charging infrastructure.

Property Management (Health & Safety)

Savills Property Management has issued policies and checklists regarding the health and safety of EV charging, which can present a fire risk. Any managed site with EV chargers or considering installing charging facilities must complete the checklist. This will help landlords with insurance matters.
The checklist is based on advice and recommendations from guidance provided by different fire brigades and insurance companies.

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Neighbourhood Charging

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Savills Commercial
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